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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/928,684	08/13/2001	Masanori Sugata	1110.65746	8172

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EXAMINER

CHOOBIN, BARRY

ART UNIT PAPER NUMBER

2625

DATE MAILED: 12/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 09/928,684	<b>Applicant(s)</b> SUGATA, MASANORI	
	<b>Examiner</b> Barry Choobin	<b>Art Unit</b> 2625	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-6 is/are rejected.
- 7) ☒ Claim(s) 3 and 7 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |  |
|--|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>8/13/01</u> . | 6) <input type="checkbox"/> Other: ____  |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on August 13, 2001 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

3. Claims 1, 2, 4, 6 are rejected under 35 U.S.C. 102(b) as being anticipate by Homma et al (US 5,784,500).

As to claim 1, Homma et al disclose a money identifying method (column 4, lines 22-25 wherein an amount of money is read), comprising the steps of:

obtaining a surface image of money (fig.1);

extracting a particular threshold calculation range of the obtained surface

image (column 2, lines 8-35 wherein a detecting means detects an edge area if the original image on the basis of the comarison result of the computing means, and a

determining means determines a threshold value on the basis of the a density

distribution of the pixels in the edge area, corresponds to a particular threshold calculation range);

determining a density histogram of the extracted threshold calculation range (column 6,

lines 26-31 and fig.3A, wherein a histogram of the density values of the pixels in the edge area is extracted);

calculating a binary threshold value for binarizing from the determined density histogram by a discriminating analysis (column 6, lines 26-31 and fig.3A, wherein the distribution value with the largest value is determined to be a binarized threshold value of 01, lines 12-16);  
binarizing the obtained surface image of the money on the basis of the calculated binary threshold value (column 2, lines 16-26 wherein a binarizing means binarizes the original image on the basis of the threshold value); and identifying the money based on the binary image (column 4, 22-25 wherein an amount of money is read. Inherently reading an amount of money requires first to identify the money as money).

As to claims 2 and 6, Homma et al disclose step of extracting the threshold calculation range is performed by extracting an image of a predetermined area containing a feature area subject to judgment of the money and not containing a background (column 2, lines 37-44 wherein by focusing only on the edges area, the method is capable of making more accurate threshold judgment without being affected by unnecessary density information such as from the background).

As to claim 4, claim 4 is analogues to claim 1 above, with the distinction of being a device and not a method. Homma et al provide a method and apparatus (column 2, lines 8-11). Accordingly as to limitations of claim 4, they are similarly analyzed and rejected as limitations of claim 1 above.

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Homma et al in view of Merton et al (US 5,144,495).

As to claim 5, Homma et al disclose the device of claim 4 (see claim 4).

Homma et al does not expressly disclose a lighting means for illuminating a surface of the money and an image pick up means for taking picture of the surface of the money.

Merton et al disclose a system for illuminating and evaluating surfaces comprising a lighting means for illuminating a surface of the money and an image pick up means for taking picture of the surface of the money (column 8, lines 42-56).

Merton et al and Homma et al are combinable because they are from the same field of endeavor of surface evaluation.

At the time of the invention, it would have been obvious to a person of ordinary skill in the art to modify Homma et al with the illumination system of Merton et al in order to efficiently and economically provide different, controllable illumination of an object under study, where the part being examined is viewed under some substantial magnification and image enhancement (column 4, lines 11-27).

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The motivation/suggestion for doing so would have been to efficiently and economically provide different, controllable illumination of an object under study (column 4, lines 11-27).

Therefore, it would have been obvious to combine Merton et al with Homma et al in order to obtain the invention as specified in claim 5.

***Allowable Subject Matter***

6. Claims 3 and 7 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

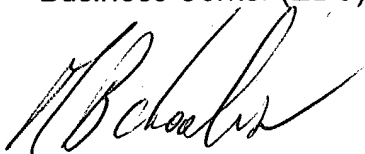
***CONTACT INFORMATION***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Barry Choobin whose telephone number is 703-306-5787. The examiner can normally be reached on M-F 7:30 AM to 18:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bhavesh Mehta can be reached on 703-308-5246. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, appearing to read 'B. Choobin', is written over the printed name.

Barry Choobin  
November 4, 2004